

rejected under 35 U.S.C as being unpatentable over Spear in view of Wichter, and further in view of Tiedemann Jr. et al. (US 5,999,816). Claims 22-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spear in view of Wichter, and further in view of Amin et al. (US 5,995,830). Applicant respectfully traverses these rejections by the Examiner.

All of the examiner's rejections rely on at least the combination of Wichter and Spear. However, the various combination of Wichter, Spear, Tiedemann and Amin lack elements of the claimed invention, namely

- (I) a communication protocol reason for a reconnection attempt; and
- (II) a number of times the reconnection is attempted for the same communication protocol reason.

The examiner relies on the alleged equivalent retry count of Wichter for the 'number of times' element of the Invention. As the Examiner states, Wichter discloses a retry count. However, Wichter's retry count is critically different from the present Invention. The "retry count" of the present invention is a number of times the reconnection is attempted for the same reason. Wichter's retry count is "a communications retry count that indicates the number of times dispensing unit ... has tried to transmit this message."

These numbers would therefore typically be different as illustrated by the following example. Consider a mobile phone is in a packet data mode that never undergoes any call drop. Instead, it purposely disconnects whenever the channel is not required, such as during an intermediary time between downloads when the user is reading a downloaded web page. When the channel is once again required, the mobile reconnects.

Reconnection may require multiple attempts or may fail for several reasons. The mobile may not know the root cause of the failure but it can determine a protocol reason such as for failing to receive an acknowledgment or response, receiving a response with an incorrect or undesired service option or loss of the initial traffic channel preamble transmission. Such reasons can be determined and counted by a mobile. Typically, the mobile may send multiple reconnection request messages such as origination with the same number and reason during one access attempt. A reconnection attempt may fail several times due to receiving no response and then subsequently fail once due to an undesired service option. The next attempt might thus include a number value of 1 and a reason indicating "undesired service option" even though the user's reason for connection is the same (download a web page) the communication protocol reason changed and the number does not simply count up, it changes depending on the communication protocol reconnection process.

Regarding Claim 18 and dependent claims 19-21, the rejection of Claim 18 is traversed given that the combination of Spear and Wichter (I) lacks the element of the number of times the reason has occurred, (II) lacks the element of the reason, and (iii) is not motivated but is a mere aggregation. Any one of these reasons is sufficient in itself to traverse the rejection.

Spear does not disclose the number of times the failure occurs nor does it disclose the number of times the reason has occurred. Although the Examiner states "Spear does not clearly indicate the number of times the failure occurs", in fact Spear does not indicate it at all. Spear indicates only a code to inform the switch that the call origination is a request for reconnection. The Examiner alleges, "Wichter discloses

transmitted message having a parameter indicating a number of times that the reason has occurred" (pg 3). However, Wichter instead discloses a "retry count that indicates the number of times dispensing unit has tried to transmit this message," (col 8, lines 32-38). The number of times the message is attempted to be transmitted is different from the number of times the reason occurred. First, a message may be transmitted multiple times without the reason occurring again. For example, in CDMA, an origination message is transmitted many times in the normal process of access. Second, the same message may be retransmitted for different reasons. For example a reconnection may be attempted after not receiving any response (1st reason)", then subsequently after disagreement over service options or failed service negotiation (2nd reason), then subsequently after losing the initial traffic channel (3rd reason), and so on. In summary, neither Wichter nor Spear disclose a retry count that counts the number of times the same reason has occurred and therefore the rejection is traversed.

Wichter does not disclose an indication of a communication reason for reconnection. The Examiner even states in the rejection of Claims 22-27 "in the above it does not clearly indicate the reasons of the previously failed reconnection." (see comments below regarding Claims 22-27). Wichter discloses a "reason code that identifies the defined event that has occurred to cause transmission of a message." (col 8, lines 32-38). Wichter further discloses, "dispensing unit operates ... to transmit a message to dispensing unit controller system ... upon the occurrence of a number of defined events" and "defined events include system initialization failure, system failure, cold-start, power loss, power restored, door open ... ' (col 7, line 60 - col 8, line 5). The reason of Wichter is clearly a code identifying a defined event that has occurred relating to the

dispensing unit operation and not a communications protocol reason. A reason according to the present invention is as disclosed in the specification: "an access failure, a lack of resources, an acknowledgment failure, a connection denial, and a lack of channel assignment" (Claim 22). Nor are the status codes of Wichter applicable because they relate to the dispensing unit not the communication protocol as evidenced by the following: "status codes indicating the status of all monitored features of dispensing unit (col 8 lines 39-41). In summary, neither Wichter nor Spear disclose a communication protocol reason and the rejection is thereby traversed.

Spear is directed to protecting dropped calls and Wichter is directed to managing dispensing units. The combination of Wichter and Spear is not motivated for anything other than dispensing units since there is no motivation to manage non-existent vending machine information for devices that are not vending machines. Contrary to Wichter, the present invention is directed to the communication element of systems. In summary, the rejection of Claim 18 is respectfully traversed according to any one of the above three reasons.

Regarding independent Claim 23 and dependent Claims 22 and 24-27, Claims 22-27 were rejected under 103(a) over Spear in view of Wichter and further in view of Amin. The traversal of the rejection of Claim 18 above describes how the combination of Spear and Wichter lacks both the "number of times" element and reason element where the "number of times" is a count of tries for the same communication protocol reason. The Examiner attempts to address only one of these elements (i.e. reason) in the rejection of these claims using Amin. However, relating the invention's 'reasons' to Amin's 'reasons' (i.e. mobile telephone traveled outside

coverage area, handoff to cell with insufficient communication channels, coverage hole, MSC error, interference from other RF sources" has at least two problems:

1) Amin's reasons are reasons for call drops not reasons for connection failure/refusal/dental. Although Amin discusses reconnection attempts it clearly defines the reasons as being "reasons why a telephone call with a wireless telephone may be dropped" not fail to be connected.

2) Amin's reasons cannot be determined by a mobile station (a mobile typically cannot determine the root cause of a failure). For example a mobile may not be able to differentiate whether it traveled outside coverage area or interference was too high). The present invention solves this problem by presenting the communication protocol reason for a connection failure such as not receiving a response. Not receiving a response is not the root cause but it is a clearly definable reason that can be communicated by the mobile. Another example: typically only infrastructure knows if there is an MSC error or insufficient communication channels.

Claim 18 has been amended to define the failure as a communication protocol failure and the number of times the same communication protocol failure has occurred. Thus, Applicant believes Claim 18, as amended, patentably distinguishes over the art of record. Likewise, Claims 19-22, which ultimately depend from Claim 18 are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Claim 23 has been amended to define assigning a parameter which identifies the failure has occurred and the number of times the failure has occurred and then transmitting this parameter. Thus, Applicant believes Claim 23, as amended, patentably distinguishes over the art of record. Likewise, Claims 24-27 which ultimately depend from Claim 23 are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

NEW CLAIMS

New Claims 44 and 46 are independent Claims defining in present invention in a different manner than Claims 18 and 23, respectively. Claims 45 and 47 are dependent claims which depend from Claims 44 and 46, respectively. Applicant believes that Claims 44-47 read on the elected species.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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ATTACHMENT FOR CLAIM AMENDMENTS

The following is a marked up version of each amended claim in which underlines indicates insertions and brackets indicate deletions.

18. (Amended) A mobile station for use in a wireless request to the wireless communication comprising:

a transceiver which transmits a connection request to the wireless communication system; and

a processor which determines when the connection request fails and further determines a parameter which identifies [the]a communication protocol reason for the failure and the number of times the same communication protocol reason for the failure has occurred.

23. (Amended) A method of requesting connection to a wireless communication system comprising:

transmitting a first connection request; and

determining when the first connection request fails;

assigning a parameter which identifies the [reason for the first connection request failure]failure has occurred and the number of times the failure has occurred; and

transmitting a second connection request, wherein the second connection request includes the parameter.